



RESPONSE TO WHOLESALE GAS MARKETS DISCUSSION PAPER

1. INTRODUCTION

QGC welcomes the opportunity to provide comment on the Wholesale Gas Markets Discussion Paper (**the Paper**) released by the Australian Energy Market Commission (**AEMC**). The Paper is an important first step in examining whether changes to the wholesale gas market design are necessary to deliver the Council of Australian Government's (COAG) Energy Council's Vision of a liquid wholesale gas market. To support development in this area, the Paper outlines three market design concepts ranging from incremental change to more pronounced reform to the current gas market arrangements as a means of seeking feedback from stakeholders. We support this approach and appreciate the proposals do not represent an AEMC preferred position.

In our view, the two primary objectives of market development for the east coast are to enable gas to move freely to customers who value it most and ensure underlying prices are efficient (i.e. reflect underlying supply-demand in the short-term and signal the need for new investment). As raised in earlier submissions, market design changes should target the key limiting factors to achieving these outcomes and include:

1. Access to short-term unutilised capacity and ensure pricing reflects the underlying short-run marginal cost of transport ; and
2. Concentrating liquidity by creating a market design that encompasses the broadest set of potential buyers and sellers as is practical.

In this context, based on our initial assessment, QGC does not view any of the outlined design concepts as necessarily the optimal short to medium-term solution for the east coast gas market. Rather, we consider there are other options that will more suitably meet the needs of the market now and into the future. A summary of our key comments to the Paper are outlined below:

1. Developing options to improve access to efficiently priced short-term unutilised capacity and concentrating liquidity should be central to approaching market design on the east coast.
 - The introduction of a well-functioning secondary capacity trading scheme could avoid the need to develop detailed market design concepts (including trading points) for the east coast. Rather, trading locations would naturally evolve at locations where buyers and sellers consider it best suits their needs.
 - If separately considering the expansion of the Gas Supply Hub (**GSH**), there is significant benefit in exploring options that enhance and concentrate liquidity at one trading point
2. We request the AEMC to explore the merits of QGC's proposed "Concept 4" as a solution to advance the east coast gas market until more complex regulatory issues are examined.
3. While the Paper initiates discussion on whether changes to the wholesale market design are necessary, further work is required to define the optimal design concept for the east coast.
4. We suggest the Wholesale Gas Market's Work Stream is broadened to consider changes that would provide greater flexibility for shippers to renominate deliveries "within-day".

2. ADDRESS THE UNDERLYING ISSUES - ACCESS TO EFFICIENTLY PRICED SHORT-TERM UNUTILISED CAPACITY

Addressing the fundamental issue of bringing unutilised short-term pipeline capacity to market is likely to remove the need to introduce or prescribe alternative physical or virtual trading hubs.. With a more open and efficiently priced short-term pipeline capacity trading environment, gas trading locations will naturally evolve at locations where buyers and sellers consider it best suits their needs.

Enabling more effective secondary capacity trading (at floating prices that reflect dynamic short-run supply and demand conditions), would likely encourage greater participation and liquidity at the Wallumbilla GSH including involvement from those participants in southern markets who may not currently hold long-term firm capacity.

While we recognise issues around capacity trading are being considered through a separate Work Stream, it is difficult to separate this issue from fundamental market design. For this reason we request the AEMC to consider these two issues as an integrated package of work.

3. THE IMPORTANCE OF CONCENTRATING LIQUIDITY

Given it will take time to establish an effective secondary capacity trading scheme and the limited size of the east coast market, there is significant benefit in exploring design concepts that enhance and concentrate liquidity at one trading point (e.g. Wallumbilla).

This will provide sufficient depth to enable the establishment of an efficient reference price, which is necessary if the Australian Stock Exchange (ASX) futures contract is to be successfully traded and also assist parties wishing to enter into bi-lateral arrangements. Increased trading at one point narrows the bid-offer spreads and the overall price ticks between trades, which is a commonly used indicator of liquidity. Developing an effective futures market is in the long-term interest of consumers providing instruments to hedge risk and underpin long-term security of supply.

While the Wallumbilla GSH has only been operating for 18 months, outcomes to date are promising. There are, however improvements that can be introduced to ensure it develops into a liquid and transparent market.

A significant proportion of the trading activity was concentrated in Q3 last year and trading volumes have increased more recently in the lead-up to the commissioning of the other LNG projects. It is, however, uncertain whether this will be sustained beyond this period. Moving forward, the underlying design of the market may limit trading from reaching levels that are sufficiently high to bring about the establishment of a credible reference price. For example the number of registered participants has remained relatively unchanged since the market commenced, which may suggest that there are factors limiting new players joining the market and / or additional volumes being traded.

4. INITIAL ASSESSMENT OF THE OPTIONS

In our view, the two primary objectives of market development for the east coast are to enable gas to move freely to customers who value it most and ensure underlying prices are efficient (i.e. reflect underlying supply-demand in the short-term and signal the need for new investment).

While outcomes on capacity trading are likely to be highly influential on achieving these objectives, for simplicity we have endeavoured to limit our consideration of each of the concepts to factors that will increase liquidity. We have broken this into a number of criteria and formulated an initial assessment based on the information available and our understanding of how the concepts are expected to operate. These criteria include whether the design:

1. Supports the market to determine optimal trading locations;
2. Captures a broad set of buyers and sellers;
3. Facilitates the flow of gas to its highest value;
4. Presents complexity in Implementation– e.g. does it require entry/exit models, property rights amendments and or capacity trading?

Table 1 below provides a high level summary of our initial assessment (NOTE GREEN = LIKELY, AMBER = POTENTIALLY AND RED = UNLIKELY). This is followed by a discussion of the benefits and challenges of each of the options.

Table 1: QGC Overall Assessment of Design Concepts

Assessment Criteria	Concept 1	Concept 2	Concept 3	Concept 4
Market determined trading location	Red	Red	Green	Green
Captures a broad set of players	Red	Red	Green	Green
Gas flows to its highest value customer	Amber	Amber	Green	Green
Implementation complexity	Amber	Green	Red	Amber
Overall potential to increase liquidity	Red	Red	Green	Green

Concept 1 – Multiple physical hub locations with balancing at Sydney and Adelaide

Key features: under this concept, market participants would trade physical gas on GSHs at Wallumbilla, Moomba, Longford, Gladstone and Iona. Essentially it represents a US style model where physical hubs are located at intersection points between major pipelines.

Benefits:

- In one aspect this could represent an overall improvement on the current structure as there are harmonised trading arrangements across the east-coast. Multiple market designs make trading complex, inefficient and costly for participants.

Challenges/Issues

- The underlying market is too small to support this market design.
 - In contrast to the US market (which is noticeably larger and more integrated), it is unlikely that the multiple point design will enable the development of a principle reference price for the east coast under this model. Rather, it is more than likely that

separate markets will emerge with a smaller concentration of players. Essentially this model could suffer from some of the same issues as the Short-term Trading Markets (STTM) in terms of trading thin volumes and limited participants. Overall this does not support the development of a creditable reference price.

- It would need to be underpinned by a well-functioning secondary capacity trading scheme.
 - A short-term capacity trading mechanism would be required to operate on all major pipelines to ensure that prices remain reflective of supply and demand and are not subject to manipulation by shippers holding the majority of pipeline capacity. It is difficult to envisage that such arrangements could be introduced ahead of changes to the pipeline regulatory framework, which are complex in nature.
- Arguments that sharper locational prices, generated under this model, could assist in identifying contractual congestion on pipelines is not an adequate basis to implement changes.
 - In QGC's view, implementing policy changes to highlight known market failures does not represent a sound approach to policy development and it would be concerning if this was one of the primary drivers for progressing this model. It is far more preferable to separate these issues and focus the outcomes from this Work Stream on designing concepts that support the long-term interests of the market.

Concept 2 – Northern and southern virtual hub with balancing at Sydney and Adelaide

Key features: this concept would allow participants to trade natural gas at the northern hub (Roma to Brisbane Pipeline (RBP) and Wallumbilla and southern hub (encompassing the entire Victorian Declared Transmission System).

Benefits:

- While QGC questions the overall benefits of this model in terms of market liquidity (see below) it is a logical step change to create a single Wallumbilla/RBP hub for a number of other reasons:
 - It would reduce the transactional costs imposed on participants at the Brisbane STTM;
 - The Brisbane STTM is serviced by a single pipeline from Wallumbilla (the Sydney and Adelaide STTMs are supplied by multiple pipelines); and
 - The regulatory changes required to create the virtual hub are likely to be relatively less complex as RBP is a regulated pipeline.

Challenges/Issues

- Outside the changes Declared Wholesale Gas Market (DWGM,) this concept represents the least level of change relative to the other options. Given the identified issues with the current market design, this concept is unlikely to generate additional liquidity and a creditable reference price being established at any one trading location. Similar to the issues discussed regarding concept 1, it does not represent a sufficiently deep pool of potential buyers and sellers.

- While it does incorporate the RBP, as part of the virtual Wallumbilla/Northern supply hub (and presumably results in the closure/voluntary market at the Brisbane STTM) it is unclear whether it will lift overall liquidity and materially assist in the formation of a credible reference price. Fundamentally, the structure of the market (i.e. low number of participants) is not altered, and as evidenced in recent months demand at the Brisbane STTM is falling and flows are reversing.
- As QGC is not a current participant in the DWGM, we are not in a position to evaluate whether the suggested changes to the southern market are beneficial.
- This concept also contemplates the inclusion of a GSH at Moomba in order to provide an alternative centralised exchange for participants (particularly southern players) to trade gas. There are, however, a range of factors that require more detailed consideration in order to demonstrate that establishing a separate pricing point at Moomba is the optimal short and / or long-term solution for the east coast gas market.
 - QGC actively supports enabling participants/customers across the east coast to access exchange traded gas markets. Moomba is an obvious potential location for southern based customers and end-users to access direct supply or supply from Gippsland/Bass Strait Basins. We note there is a lack of access for northerly flows on the South West Queensland Pipeline (**SWQP**), which is likely to be impacting southern based participants' ability to trade at Wallumbilla.
 - QGC considers a well-functioning exchange market at Wallumbilla is central to growing liquidity on the east coast. One such issue is whether introducing a new pricing point at Moomba will split market liquidity and create greater price volatility. QGC is of the view that this is a likely outcome. We understood an important aspect of this Work Stream was to gain a more detailed understanding of this issue and we would encourage the AEMC to further this analysis in consultation with stakeholders.
 - As mentioned, given the size of the east coast gas market and at this stage in its development, there is significant benefit in concentrating trading/liquidity at one trading point (e.g. Wallumbilla). This will provide sufficient depth to enable the establishment of an efficient reference price. In this sense, consideration of a separate pricing point at Moomba should not only be limited to assessing the potential impacts for the different trading points. It should equally consider how it is most appropriately incorporated into a market design so as to maximise liquidity across the entire east coast.
- In addressing these issues, QGC considers a variant on this concept would best meet the needs of the market in the short to medium term. This is outlined in Section 5.

Concept 3 – Two large virtual hubs covering the east coast

Key features: As with concept 2, market participants can trade natural gas at the northern and southern hubs. However, the geographical hub definitions are far larger than concept 2. Incorporating Mt Isa and Gladstone in the northern hub and Moomba and Tasmania in the south.

Benefits:

- QGC would view a concept similar to this as the preferable longer-term market model for the east coast (i.e. a potential ten year aspirational target for the market).
 - It encompasses the broadest set of potential buyers and sellers. It has the most potential to maximise trading liquidity in each hub so as to foster the development of a credible reference price.

Challenges/Issues:

- As noted by the AEMC, it represents a significant departure from the status quo and presents a wide ranging set of complexities (such as entry/exist pricing) that would take time to progress. As such it is unlikely it could be implemented, in full, over the near term.

5. “CONCEPT 4” – A VIRTUAL CENTRAL HUB WITH PHYSICAL TRADING AT GLADSTONE

Concept 4 - *This concept would allow participants to trade natural gas at a virtual central hub (incorporating Wallumbilla and the SWQP). The proposed Southern Hub would still exist along with a new physical trading point at Gladstone.*

Overall, this concept offers a short to medium term solution for advancing market while other more complex changes are examined regarding pipeline frameworks. It differs from the other design concepts as it:

1. Proposes a new central virtual hub covering the SWQP and incorporating the existing Wallumbilla and Moomba facility and related infrastructure.
2. Captures the major demand entry/exit points.
3. Creates a new voluntary physical market at Gladstone.

The Attachment includes a map indicating the new hub definitions under concept 4 (marked in red) overlaid on concept 2. The key production and demand centres are also marked in yellow and green respectively.

Benefits:

- It could be implemented more simply than Concept 3, while still capturing the major production and demand elements of the east coast markets (i.e. represents a broader set of the market participants (and gas flows) than currently exists at Wallumbilla GSH). In our view, the proposed coverage of buyers and sellers is likely to create a market with sufficient depth to underpin the establishment of a creditable reference price.
 - It incorporates the two major production areas (outside Victoria) and it will capture a significant proportion of the expected future gas flow across the east coast.
 - It is likely to be easier to implement in the short-term (relative to other options) as the regulatory aspects only apply to one major pipeline.
 - It strikes the appropriate balance between concentrating liquidity and avoiding wide sweeping regulatory change to pipelines arrangements across the east coast.
 - Depending on whether there are changes made to the STTM in Brisbane there is potential the central hub could extend across RBP, although this would require more detailed consideration.
- It incorporates Moomba, as part of the east coast market design, in a manner that best supports overall liquidity and appropriately captures the role it plays as a “transit point” for gas.
 - There is a clear case for Moomba to form part of a central hub linked to Wallumbilla.

- While we acknowledge that physical gas sales at Moomba are more than likely to service customers in the southern markets, given the scale of Queensland’s LNG load compared to the domestic market, pricing at Moomba (and potentially in the southern market) is expected to be heavily influenced by supply and demand conditions in the north.
- Provides a new platform for buyers and sellers in Gladstone to exchange short-term available gas.
 - Gladstone represents a distinct physical short-term market - there are a number of industrial gas customers in and around the region possibility looking to trade gas and there is potential for spot gas from the LNG facilities due to unexpected events etc.
- QGC has previously suggested an alternative model where Moomba would be considered a receipt point for the Wallumbilla GSH. Under this model, trades would be based off the Wallumbilla price ex-transport. While, implementation would require a number of issues to be worked through, this could be examined as an intermediate step towards the creation of a central hub.

Issues for further consideration

- Entry and exit arrangements would need to be established, which involves consideration of how these are best applied to the SWQP as an “uncovered” pipeline (and whether any regulation is necessary).
- The Australian Energy Market Operator is currently considering the development of a single product at for the Wallumbilla GSH. This work could be helpful in the context of the SWQP. APA’s ownership (and potential operator of the Wallumbilla GSH) of the majority of the infrastructure across the proposed central hub is also advantageous in terms of addressing implementation issues.

6. OTHER ISSUES – DEVELOPMENT OF AN INTRA-DAY MARKET

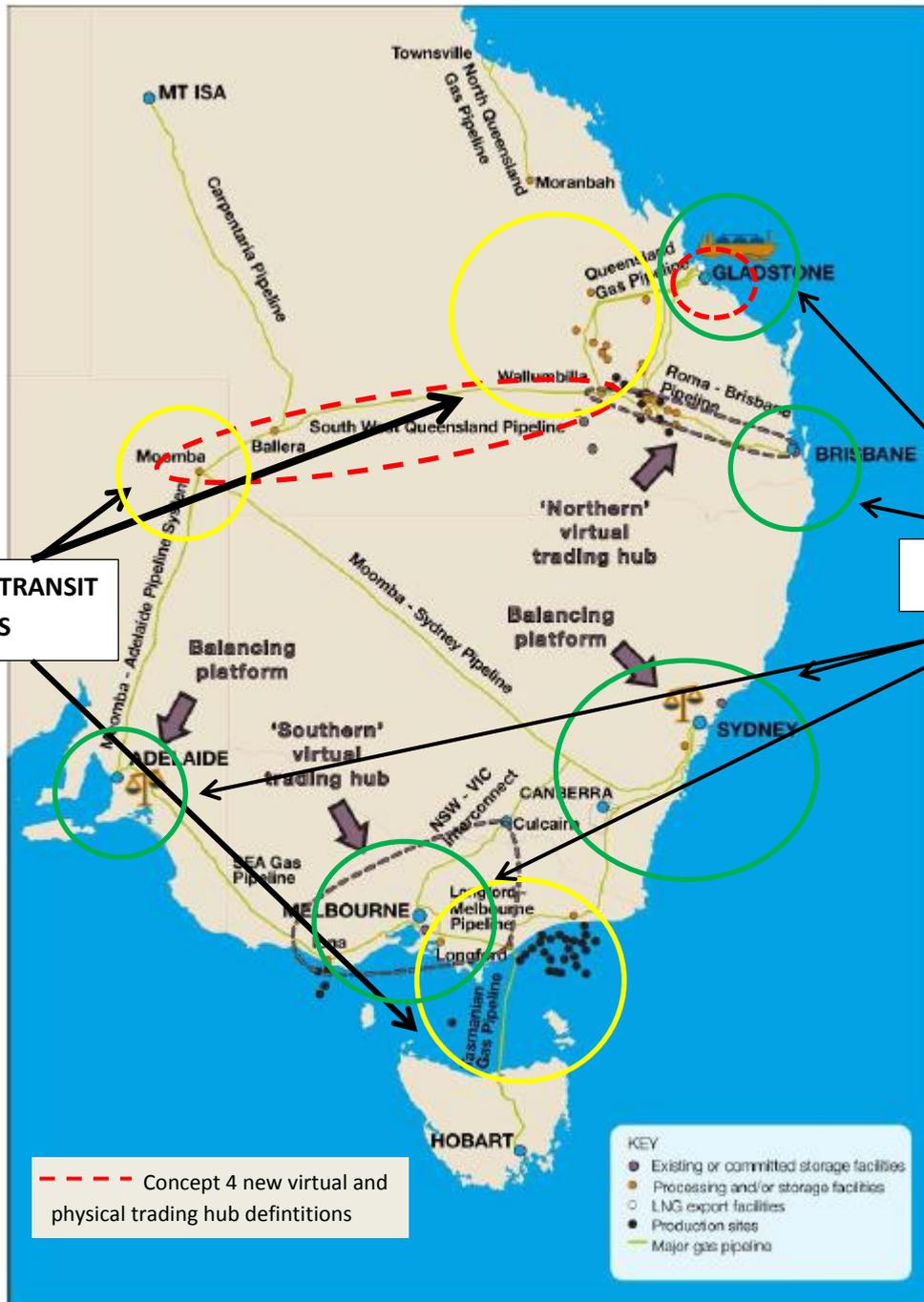
In earlier submissions, QGC identified that establishment of “within-day” trading flexibility is essential to allow further balancing (due to the swings in LNG production), increased liquidity and the overall development of a well-functioning east coast gas market. It is our expectation that this issue would also be considered through this Work Stream and in do so examine the impediments to and options for creating a viable intraday gas market.

We note this Paper (and other elements of the Review) touches on some aspects such as harmonising the “gas day” and the role and operation of the STTM’s, however this does not extend to intraday renominations. We would encourage the AEMC to consider this specific issue as it progresses the Wholesale Gas Markets’ Work Stream. We note the ACCC Wholesale Gas Inquiry may consider this issue in the context of competition and market structure, but it is equally relevant to market design and the development of a liquid and transparent short-term market.

This capability is necessary to enable participants to respond to “within-day” changes in supply and demand. For example an unplanned LNG facility outage could result in excess gas being made available to the market. “Within-day” renomination capability could enable a gas-fired generator to respond to higher than expected evening peak demand by sourcing this additional gas. Furthermore, establishing a “within-day” market is central to the effectiveness of other market development initiatives (including a potential secondary capacity trading regime).

While intraday renominations are a feature of mature overseas gas markets (such as the UK), there has been little real discussion on why greater flexibility is not available within the east coast gas market. While QGC is led to believe that, under many Gas Transportation Agreements, renominations are cost prohibitive, it needs to be fully explored by the AEMC as part of this process and inappropriate non-cost reflective charges are avoided in the future.

Concept 4: A central virtual hub and physical trading at Gladstone



PRODUCTION /TRANSIT CENTRES

DEMAND CENTRES

--- Concept 4 new virtual and physical trading hub definitions

KEY
 ● Existing or committed storage facilities
 ● Processing and/or storage facilities
 ○ LNG export facilities
 ● Production sites
 — Major gas pipeline